

1. Apparatus for repairing a tendon or ligament having fibers extending in a lengthwise direction thereof, the apparatus comprising:
 - an elongate tensile member adapted to extend within the interior of said tendon or ligament; and
- 5 a first anchor configured for insertion within the interior of said tendon or ligament, said first anchor comprising:
 - an anchor body including an outer surface,
 - a bore extending through said body and along an axis generally parallel to a longitudinal axis of said body, and
- 10 a plurality of barbs extending outward from said outer surface and further extending in a circumferential direction around said outer surface.

2. The apparatus of claim 1, wherein said outer surface is tapered along said longitudinal axis of said body.
3. The apparatus of claim 1, wherein said anchor body further includes a second section adjacent said first section.
4. The apparatus of claim 3, wherein said second section includes an outer surface tapered in a direction opposite the taper of said first section.

5. Apparatus for repairing a tendon or ligament having fibers extending in a lengthwise direction thereof, the apparatus comprising:

 a first helical anchor configured for insertion within the interior of the tendon or ligament, said helical anchor defining an interior portion;

5 an elongate tensile member adapted to extend within the interior of said tendon or ligament and through said interior portion of said anchor; and

 a first retaining member configured for insertion within said interior portion of said anchor, said retaining member expandable from a first state to a second state, wherein the fibers of the tendon or ligament are received

10 between said retaining member and said anchor when said retaining member is in said first state, and when expanded to said second state, said retaining member holds the fibers between said retaining member and said anchor.

6. The apparatus of claim 5, further comprising an actuator for expanding said retaining member from said first state to said second, expanded state.

7. The apparatus of claim 5, further comprising a needle coupled to said elongate tensile member, proximate an end thereof.

8. The apparatus of claim 5, further comprising a first stop member coupled to said elongate tensile member, proximate an end thereof.

9. The apparatus of claim 8, wherein said first stop member comprises a crimp member.

10. Apparatus for repairing a tendon or ligament having fibers extending in a lengthwise direction thereof, the apparatus comprising:
 an elongate tensile member adapted to extend within the interior of the tendon or ligament;

5 a first helical anchor configured for insertion within the interior of the tendon or ligament and couplable to said elongate tensile member; and
 a second helical anchor configured for insertion within the interior of the tendon or ligament and couplable to said elongate tensile member, said second helical member concentrically aligned with said first helical anchor; and

10 a first retaining member coupled with said first and second anchors and configured therewith to allow simultaneous driving of said first and second anchors and said first retaining member into the interior of the tendon or ligament with the fibers of the tendon or ligament held generally between said first and second anchors and said first retaining member.

11. The apparatus of claim 10, further comprising a first stop member coupled to said elongate tensile member, proximate an end thereof.

12. A method of repairing a tendon or ligament having fibers extending in a lengthwise direction, the method comprising:

installing a first end of an elongate tensile member within the tendon or ligament through a cut end of the tendon or ligament;

5 directing the first end of the elongate tensile member along at least a portion of the tendon or ligament and out of the tendon or ligament through a longitudinal sidewall thereof;

coupling a soft tissue anchor to the elongate tensile member;

installing the anchor within the tendon or ligament; and

10 applying tension to the elongate tensile member to move the first end of the elongate tensile member in a direction toward the anchor.

13. The method of claim 12, further comprising:

securing a stop member proximate the first end of the elongate tensile member; and

engaging the stop member against the anchor while applying the 5 tension to the elongate tensile member.

14. The method of claim 13, wherein the stop member is secured to the elongate tensile member prior to installation of the elongate tensile member within the tendon or ligament.

15. A method of repairing a tendon or ligament having fibers extending in a lengthwise direction, the method comprising:

installing a first end of an elongate tensile member within the tendon or ligament through a cut end of the tendon or ligament;

5 coupling a hollow soft tissue anchor to the elongate tensile member;

installing the anchor within the tendon or ligament;

inserting a retaining member within the anchor; and

expanding the retaining member to compress the fibers against

10 the anchor.

16. The method of claim 15, wherein the step of expanding the retaining member includes holding the retaining member substantially stationary with respect to the tendon or ligament and applying tension to the elongate tensile member to move the first end of the elongate tensile member

5 in a direction toward the retaining member.

17. A method for repairing an Achilles tendon having first and second segments, comprising:

installing first and second anchors within a first segment of the tendon;

5 installing third and fourth anchors within a second segment of the tendon;

installing first and second elongate tensile members within the first and second segments of the tendon, whereby the first elongate tensile member is received through the first and third anchors and the second elongate 10 tensile member is received through the second and fourth anchors;

securing at least first and second stop members proximate respective first ends of the first and second elongate tensile members; and

applying tension to the first and second elongate tensile members to approximate the first and second segments of the tendon.

18. The method of claim 17, further comprising securing third and fourth stop members proximate respective second ends of the first and second elongate tensile members.

19. The method of claim 17, wherein at least one of the first and second elongate tensile members is provided with a stop member pre-secured to an end thereof.

20. The method of claim 19, further comprising:
trimming at least one of the first and second elongate tensile
members.

21. A method for repairing an Achilles tendon, comprising:
installing first and second anchors within a first segment of the
tendon;
installing third and fourth anchors within a second segment of the
5 tendon;
installing an elongate tensile member within the first and second
segments of the tendon, whereby the first elongate tensile member is received
through the first, second, third, and fourth anchors;
applying tension to the elongate tensile member to approximate
10 the first and second segments of the tendon; and
securing at least a first stop member on said elongate tensile
member.

22. The method of claim 21, further comprising:
securing a second stop member on said elongate tensile member.

23. The method of claim 21 further comprising:
trimming the elongate tensile member.

24. An apparatus for repairing a tendon or ligament, comprising:
a bone anchor, including:
a body,
a bore through said body, and
5 at least one projection extending outwardly from said body
to engage the bone;
an elongate tensile member having a first end couplable to said
bone anchor; and
a soft tissue anchor couplable to said elongate tensile member,
10 said soft tissue anchor including:
a first helical anchor configured for insertion within the
interior of the soft tissue, and
a first retaining member positioned substantially within said
first helical anchor and configured to cooperate with said first helical anchor to
15 engage the soft tissue for attachment of said soft tissue anchor thereto.

25. The apparatus of claim 24, wherein said bone anchor further
comprises a flange proximate said second end.

26. The apparatus of claim 24, wherein said bone anchor further
comprises a flared aperture proximate an end of said body, said elongate
tensile member extending through said flared aperture.

27. The apparatus of claim 24, wherein said bone anchor further comprises a swivel member rotatably coupled to an end of said body, said elongate tensile member coupled to said swivel member, said swivel member rotatably positionable to permit reorientation of said elongate tensile member.

28. The apparatus of claim 24, wherein said bone anchor further comprises:

5 a crimp member on an end of said body, said crimp member configured to receive said elongate tensile member and to crimp onto said elongate tensile member.

29. The apparatus of claim 24, further comprising:

a stop member secured to said first end of said elongate tensile member and against said bone anchor.

30. The apparatus of claim 24, wherein said projection comprises screw threads.

31. The apparatus of claim 24, wherein:

said elongate tensile member includes a contoured surface along at least a portion of its length; and

5 said bone anchor is configured to engage said contoured surface to secure said elongate tensile member thereto.

32. An anchor for attaching a tendon or ligament to a bone,
comprising:
an elongate member having a first portion configured to engage
the bone and a second portion configured to engage the tendon or ligament;
5 said second portion including:
a helical anchor configured for insertion within the interior
of the tendon or ligament, and
a retaining member coupled with said helical anchor and
configured to allow simultaneous driving of said helical anchor and said
10 retaining member into the interior of the tendon or ligament, with the fibers of
the tendon or ligament held generally between said helical anchor and said
retaining member.

33. The anchor of claim 32, further comprising:
a drive tool engagement portion integral with said second portion,
said drive tool engagement portion configured to engage a drive tool and to
rotate said first and second portions for installation into the bone and tendon or
5 ligament, respectively.

34. The anchor of claim 32, wherein said first portion comprises:
an elongate shaft; and
screw threads disposed on said shaft and configured to bore into
the hard tissue.

35. The anchor of claim 32, wherein said first portion comprises:
an elongate shaft; and
a plurality of barbs disposed along said shaft for attachment to the
hard tissue.

36. A method of repairing a tendon or ligament having fibers extending in a lengthwise direction, comprising:

inserting an elongate tensile member within the tendon or ligament;

5 inserting a soft tissue anchor within a tendon or ligament;

attaching a bone anchor to a bone;

coupling the elongate tensile member to the soft tissue anchor;

coupling the elongate tensile member to the bone anchor; and

applying tension to the elongate tensile member to approximate

10 the tendon or ligament and the bone.

37. The method of claim 36, further comprising:

securing a stop member to the elongate tensile member and against the soft tissue anchor.

38. The method of claim 36, further comprising:

securing a stop member to the elongate tensile member and against the bone anchor.

39. The method of claim 36, wherein the step of inserting the soft tissue anchor comprises:

gripping fibers of the tendon or ligament between a helical anchor and a retaining member.

40. The method of claim 36, wherein the tissue anchor includes a hollow anchor and an expandable retaining member insertable within the hollow anchor, the method further comprising:

expanding the retaining member to compress the fibers between

5 the retaining member and the hollow anchor.

41. An apparatus for attaching a tendon or ligament to a bone, comprising:

an elongate tensile member having a first end configured to be driven through soft tissue and bone when said elongate tensile member is 5 rotated about its longitudinal axis;

a soft tissue anchor couplable to said elongate member to secure at least a portion of said elongate tensile member to the tendon or ligament; and

at least one stop member securable to said elongate tensile member to fix the position of said elongate tensile member with respect to said soft tissue anchor.

42. The apparatus of claim 41, wherein said elongate tensile member exhibits elasticity along its length such that said elongate tensile member creates a desired spring force between the bone and the tendon or ligament when inserted through the bone and tendon or ligament and secured relative to 5 said soft tissue anchor.

43. The apparatus of claim 41 further comprising at least one spring element coupled to said elongate tensile member.

44. A method of attaching a glenoid labrum to a glenoid socket for arthroscopic shoulder stabilization, the method comprising:

installing an elongate tensile member through the glenoid socket and glenoid labrum and proximate a desired area for attachment of the glenoid labrum;

coupling a soft tissue anchor to the elongate tensile member;

inserting the soft tissue anchor within the glenoid labrum, proximate the desired attachment area;

applying tension to the elongate tensile member to approximate the glenoid labrum and the glenoid socket; and

securing at least a first stop member on the elongate tensile member to fix the location of the glenoid labrum relative to the glenoid socket.

45. The method of claim 44, further comprising:

coupling at least one spring element to elongate tensile member to compress the glenoid labrum against the glenoid socket with a spring force.

46. The method of claim 44, further comprising:

securing a second stop member on the elongate tensile member to fix the location of the glenoid labrum relative to the glenoid socket.

47. The method of claim 44, wherein the step of installing the elongate tensile member includes installing the elongate tensile member from inside the shoulder capsule.

48. The method of claim 46, wherein one of said stop members is a washer configured for coupling with the elongate tensile member and crimpable to the elongate tensile member.

49. A method of attaching a glenoid labrum to a glenoid socket for shoulder stabilization using an anchor configured to engage the glenoid labrum and the glenoid socket, the method comprising:

positioning the glenoid labrum adjacent the glenoid socket;
5 installing the anchor through the glenoid labrum and the glenoid socket; and

compressing the glenoid labrum while securing the anchor to the glenoid socket.

50. The method of claim 49, wherein the step of compressing the glenoid labrum while securing the anchor to the glenoid socket comprises screwing the anchor into the glenoid socket.

51. A method of repairing a rotator cuff, comprising:
 - drilling at least one hole through a segment of the humeral head;
 - installing at least one soft tissue anchor within a tendon of the rotator cuff;
 - 5 inserting at least one elongate tensile member through the hole in the humeral head and within the tendon;
 - coupling the elongate tensile member with the soft tissue anchor;
 - applying tension to the elongate tensile member to approximate the rotator cuff to the humeral head; and
 - 10 fixing the position of the soft tissue anchor relative to the elongate tensile member.
52. The method of claim 51, further comprising:
 - preparing a surface on the humeral head.
53. The method of claim 52, wherein the step of fixing the position of the soft tissue anchor relative to the elongate tensile member comprises:
 - coupling a washer to the elongate tensile member along a portion of the elongate tensile member extending from the hole in the humeral head.
54. The method of claim 52, wherein the step of fixing the position of the soft tissue anchor relative to the elongate tensile member comprises:
 - securing at least one stop member to the elongate tensile member.

55. The method of claim 52, wherein:

the step of drilling at least one hole through a segment of the humeral head comprises drilling four holes;

the step of installing at least one soft tissue anchor comprises

5 installing four soft tissue anchors; and

the step of inserting at least one elongate tensile member comprises inserting two elongate tensile members such that each elongate tensile member is coupled to two of the soft tissue anchors, proximate ends of the elongate tensile member, and an intermediate portion of the elongate

10 tensile member is routed through two of the holes through the humeral head.

56. The method of claim 52, wherein:

the step of drilling at least one hole through a segment of the humeral head comprises drilling two holes;

the step of installing at least one soft tissue anchor comprises

5 installing two soft tissue anchors; and

the step of inserting at least one elongate tensile member comprises inserting the elongate tensile member such that an intermediate portion of the elongate tensile member is coupled to the two tissue anchors and ends of the elongate tensile member extend through the holes through the

10 humeral head.

57. A method of repairing a rotator cuff, comprising:
installing at least one bone anchor in the in the humeral head;
installing at least one soft tissue anchor within a tendon of the
rotator cuff;

5 inserting at least one elongate tensile member within the tendon;
coupling the elongate tensile member to the soft tissue anchor;
coupling the elongate tensile member to the bone anchor;
applying tension the elongate tensile member to approximate the
rotator cuff to the humeral head; and

10 fixing the position of the rotator cuff relative to the humeral head.

58. The method of claim 57, further comprising:
preparing a surface on the humeral head.

59. The method of claim 57, wherein the step of fixing the position of
the rotator cuff relative to the humeral head comprises securing at least one
stop member to the elongate tensile member.

60. An apparatus for securing a crimpable stop member on an elongate tensile member and cutting the elongate tensile member, the apparatus comprising:

an elongate housing member having a first end, a second end,
5 said first end configured to engage the stop member;
a crimp bit disposed proximate said first end of said housing member and movable to engage and crimp the stop member;
a cutting member disposed proximate said first end of said housing member, adjacent said crimp bit, and movable to cut the elongate
10 tensile member proximate the stop member; and
actuating structure coupled to said housing member and configured to actuate said crimp bit and said cutting member to thereby crimp the stop member and cut the elongate tensile member when manipulated by a user.

61. The apparatus of claim 60, further comprising:

a handle coupled to said housing member;
wherein said actuating structure is a lever pivotally coupled proximate said second end of housing, whereby said lever may be pivoted in a
5 direction toward said handle to actuate said crimp bit and said cutting member.

62. The apparatus of claim 60, wherein:
said housing member further includes a passage along a longitudinal axis of said housing member, said passage extending between said first and second ends;

5 said crimp bit and said cutting member disposed proximate said second end for movement within said passage between first positions wherein said crimp bit and said cutting member are substantially retracted within said passage and second positions wherein said crimp bit and said cutting member are at least partially extended from said passage.

63. The apparatus of claim 60, further comprising:
a crimp bit engagement arm operatively coupled between said crimp bit and said actuating structure, said crimp bit engagement arm configured to move said crimp bit when said actuating structure is manipulated
5 by a user; and
a cutting member engagement arm operatively coupled between said cutting member and said actuating structure, said cutting member engagement arm configured to move said cutting member when said actuating structure is manipulated by a user.

64. The apparatus of claim 60, wherein said first end of said housing member is configured to receive and support the stop member to facilitate coupling the stop member with the elongate tensile member.

65. An apparatus for loading a crimpable stop member into a crimp tool having a jaw for supporting the stop member and a crimping member biased toward the jaw, the apparatus comprising:

5 a handle;
a retaining member coupled to said handle and configured to receive the stop member; and

a crimp tool engaging member coupled to said handle and configured to engage the tool crimp and move the crimping member away from the jaw to permit said retaining member to insert the stop member within the
10 jaw.

66. A method of securing a crimpable stop member to an elongate tensile member, comprising:

slidably coupling the stop member to the elongate tensile member;

5 engaging the stop member with a tool for crimping the stop member; and

manipulating an actuating member on the tool to crimp the stop member to the elongate tensile member and to cut the elongate tensile member.

67. The method of claim 65, wherein the step of engaging the stop member includes supportably receiving the stop member on the tool.

68. An apparatus for repairing a tendon or ligament, comprising:
an elongate housing having a first end, a second end, said first
end configured to receive a soft tissue anchor;
a handle disposed proximate said second end of said housing;
5 a tubular shaft disposed within said housing, said shaft rotatable
within and movable along a longitudinal axis of said housing and having an
inner bore extending lengthwise through at least a portion of said shaft;
a driving member coupled with said shaft for rotation therewith
and configured to engage the soft tissue anchor, whereby rotation of said shaft
10 imparts rotation to the soft tissue anchor via said driving member;
an inner member disposed within said shaft and movable along
said inner bore, said inner member having an inner channel sized to receive an
elongate tensile member or a shuttle member;
a first actuating member coupled to said shaft and configured to
15 translate said shaft along said longitudinal axis of said housing when
manipulated by a user; and
a second actuating member coupled to said inner member and
configured to move said inner member along said inner bore between an
extended position wherein said inner member extends beyond said first end of
20 said housing and a retracted position wherein said inner member is
substantially within said housing.

69. The apparatus of claim 68, wherein said first and second actuating members are disposed proximate said second end of said housing, said apparatus further comprising a passage for receiving an elongate tensile member therethrough, said passage extending through said inner member, 5 said handle, and said first and second actuating members.

70. The apparatus of claim 68, further comprising an elongate tensile member disposed within said inner member, whereby manipulation of said second actuating member extends said elongate tensile member and said inner member beyond said first end of said housing.

71. The apparatus of claim 70, further comprising a needle coupled proximate a distal end of said elongate tensile member, said inner member engageable with said needle to extend said elongate tensile member and said needle past said first end of said housing when said second actuating member 5 is manipulated.

72. The apparatus of claim 68, further comprising a soft tissue anchor operatively coupled with said driving member.

73. A method of repairing a tendon or ligament, comprising:
driving a soft tissue anchor and an elongate tensile member
coupled to the soft tissue anchor into the tendon or ligament; and
moving the elongate tensile member through the soft tissue
5 anchor; and
securing the elongate tensile member to the soft tissue anchor.

74. The method of claim 73, wherein the soft tissue anchor includes a helical anchor member and a retaining member, and the step of driving the soft tissue anchor and the elongate tensile member into the tendon or ligament includes gripping fibers of the tendon or ligament between the anchor member
5 and the retaining member.

75. The method of claim 73, wherein the soft tissue anchor is substantially stationary within the tendon or ligament during step of extending the moving tensile member through the soft tissue anchor.

76. The method of claim 73, wherein the step of driving the soft tissue anchor and the elongate tensile member includes rotating and translating the soft tissue anchor.

77. The method of claim 73, wherein the soft tissue anchor and the elongate tensile member are driven simultaneously into the tendon or ligament.

78. A method of repairing a rotator cuff, comprising:
securing a bone anchor in the humeral head of a shoulder;
inserting a soft tissue anchor into a tendon of the rotator cuff;
installing an elongate tensile member through the tendon;
coupling the elongate tensile member with the soft tissue anchor;
and
coupling the elongate tensile member with the bone anchor.

79. The method of claim 78, further comprising:
securing at least one stop member to the elongate tensile
member to fix the position of the elongate tensile member relative to one of the
bone anchor or the soft tissue anchor.

80. The method of claim 78, further comprising:
applying tension to the elongate tensile member to approximate
the rotator cuff to the humeral head.

81. The method of claim 78, wherein the step of installing the
elongate tensile member includes threading a shuttle member through the soft
tissue anchor and pulling the elongate tensile member through the soft tissue
anchor using the shuttle member.

82. The method of claim 78, further comprising installing at least one
cannula into the shoulder, proximate the rotator cuff.

83. The method of claim 78, wherein the step of inserting the soft tissue anchor includes:

driving the soft tissue anchor into the tendon using a tool inserted through the cannula.

84. The method of claim 83, wherein the soft tissue anchor includes a helical anchor member and a retaining member and the step of driving the soft tissue anchor includes gripping fibers of the tendon between the anchor member and the retaining member.

85. The method of claim 79, wherein the step of securing the stop member to the elongate tensile member includes:

coupling the stop member to the elongate tensile member;
engaging the stop member with a tool for crimping the stop member; and
manipulating an actuating member on the tool to crimp the stop member to the elongate tensile member and to cut the elongate tensile member.

86. The method of claim 78, further comprising:
securing at least one additional soft tissue anchor to the tendon;
and
coupling the elongate tensile member to the additional soft tissue anchor.

87. An anchor for attaching soft tissue to a hard tissue, comprising:
an elongate member having a first portion configured to engage
the hard tissue and second portion configured to engage the soft tissue;
said second portion including:
5 a helical anchor configured for insertion within the interior
of the soft tissue, and
a retaining member coupled with said helical anchor and
configured to allow simultaneous driving of said helical anchor and said
retaining member into the interior of the soft tissue for securing the soft tissue
10 generally between said helical anchor and said retaining member.

88. A method of securing soft tissue to hard tissue, comprising:
inserting an elongate tensile member within the soft tissue;
inserting a soft tissue anchor within the soft tissue;
attaching a bone anchor to the hard tissue;
coupling the elongate tensile member to the soft tissue anchor;
coupling the elongate tensile member to the bone anchor; and
applying tension to the elongate tensile member to approximate
the soft tissue and the hard tissue.

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89. An apparatus for attaching soft tissue to hard tissue, comprising:
an elongate tensile member having a first end configured to be
driven through soft tissue and hard tissue when said elongate tensile member
is rotated about its longitudinal axis;

5 a soft tissue anchor couplable to said elongate member to secure
at least a portion of said elongate tensile member to the soft tissue; and
at least one stop member securable to said elongate tensile
member to fix the position of said elongate tensile member with respect to said
soft tissue anchor.

90. An apparatus for connecting soft tissue to hard tissue, comprising:
a hard tissue anchor, including:
a body,
a bore through said body, and
5 at least one projection extending outwardly from said body
to engage the hard tissue;
an elongate tensile member having a first end couplable to said
hard tissue anchor; and
a soft tissue anchor couplable to said elongate tensile member,
10 said soft tissue anchor including:
a first helical anchor configured for insertion within the
interior of the soft tissue, and
a first retaining member coupled to said first helical anchor
and configured to cooperate with said first helical anchor to engage the soft
15 tissue for attachment of said soft tissue anchor thereto.

91. Apparatus for repairing a tendon or ligament comprising fibers extending in a lengthwise direction thereof, the apparatus comprising:
an elongate tensile member adapted to extend within the interior of said tendon or ligament;

5 a first helical anchor configured for insertion within the interior of said tendon or ligament and couplable to said elongate tensile member;
a first retaining member coupled with said first anchor and configured therewith to allow simultaneous driving of said first anchor and said first retaining member into the interior of said tendon or ligament with the fibers 10 of the tendon or ligament held generally between said first anchor and said first retaining member; and
a stop member integral with said first retaining member for securing said elongate tensile member thereto.

92. The apparatus of claim 91, wherein said elongate tensile member includes a contoured surface along at least a portion of its length and said integral stop member is configured to engage said contoured surface to secure said elongate tensile member to said first retaining member.

93. The apparatus of claim 91, wherein said integral stop member is configured to be crimped to said elongate tensile member.

94. Apparatus for repairing a tendon or ligament comprising fibers extending in a lengthwise direction thereof, the apparatus comprising:

an elongate tensile member adapted to extend within the interior of said tendon or ligament and having contoured surface along at least a 5 portion of its length;

a first helical anchor configured for insertion within the interior of said tendon or ligament and couplable to said elongate tensile member;

a first retaining member coupled with said first anchor and configured therewith to allow simultaneous driving of said first anchor and said 10 first retaining member into the interior of said tendon or ligament with the fibers of the tendon or ligament held generally between said first anchor and said first retaining member; and

a stop member couplable with said elongate tensile member and configured to engage said contoured surface to secure said elongate tensile 15 member to said first retaining member.

95. An anchor for attaching soft tissue to a bone, comprising:
an elongate member having a first portion configured to engage
the bone and a second portion configured to engage the soft tissue, said first
portion couplable to said second portion;
5 said first portion including:
an elongate shaft having first and second ends,
bone engaging structure proximate said first end of said
shaft,
drive tool engagement structure proximate said second end
10 of said shaft configured to engage a drive tool to facilitate installation of said
first portion into a bone;
said second portion including:
a helical anchor configured for insertion within the interior
of the soft tissue, and
15 a retaining member coupled with said helical anchor and
configured to allow simultaneous driving of said helical anchor and said
retaining member into the interior of the soft tissue for securing the soft tissue
generally between said helical anchor and said retaining member.

96. The anchor of claim 95, wherein said bone engaging structure
comprises screw threads disposed along at least a portion of said shaft.

97. The anchor of claim 95, wherein said bone engaging structure
includes barbs disposed along at least a portion of said shaft.

98. An apparatus for securing soft tissue to a bone, the apparatus comprising:

a bone anchor insertable into a cavity formed in the bone and including an anchor body, said anchor body expandable in a direction substantially normal to a lengthwise direction of said body to engage the bone;
5 and
an elongate tensile member couplable to said anchor body.

99. The apparatus of claim 98, further comprising at least one stop member couplable to said elongate tensile member for engaging said bone anchor.

100. The apparatus of claim 98, wherein said bone anchor further includes an end member integral with said anchor body and coupled to said elongate tensile member.

101. The apparatus of claim 98, further comprising:

a soft tissue anchor couplable to said elongate tensile member, said soft tissue anchor comprising:
a helical anchor configured for insertion within the interior
5 of the soft tissue, and
a retaining member coupled with said helical anchor and configured to allow simultaneous driving of said helical anchor and said retaining member into the interior of the soft tissue for securing the soft tissue generally between said helical anchor and said retaining member.

102. A method of securing soft tissue to a bone, comprising:
coupling a bone anchor with an elongate tensile member;
inserting the bone anchor within a cavity formed in the bone;
expanding the bone anchor to engage the bone;
5 inserting the elongate tensile member through the soft tissue; and
securing the elongate tensile member to the soft tissue.

103. The method of claim 102, wherein the step of securing the
elongate tensile member to the soft tissue comprises:
installing a soft tissue anchor within the soft tissue, the soft tissue
anchor including a helical anchor configured for insertion within the interior of
5 the soft tissue and a retaining member coupled with the helical anchor whereby
the soft tissue is secured generally between said helical anchor and said
retaining member; and
securing the elongate tensile member to the soft tissue anchor.

104. An apparatus for repairing a tendon or ligament having fibers extending in a lengthwise direction thereof, the apparatus comprising:

an elongate tensile member adapted to extend within the interior of the tendon or ligament;

5 a helical anchor configured for insertion within the interior of the tendon or ligament and couplable to said elongate tensile member;

a retaining member coupled to said helical anchor and configured for simultaneous driving into the interior of the tendon or ligament with said helical anchor, said retaining member expandable from a first state, wherein the 10 fibers of the tendon or ligament are received between said retaining member and said helical anchor, to a second state, wherein the fibers are held between said helical anchor and said retaining member; and

an expansion member couplable with said elongate tensile member and configured to engage said retaining member to thereby expand 15 said retaining member from said first state to said second state.

105. The apparatus of claim 104, wherein said retaining member includes at least one longitudinal slot formed into said retaining member, said slot separating at least part of said retaining member into outwardly expandable portions.

106. The apparatus of claim 104, wherein said retaining member has an aperture for receiving said expansion member and said expansion member is sized to be inserted within at least a portion of said retaining member to thereby expand said retaining member from said first state to said second state.

107. The apparatus of claim 104, wherein said expansion member is configured to be secured to said elongate tensile member.

108. The apparatus of claim 104, wherein said expansion member is configured to be secured to said retaining member.

109. The apparatus of claim 108, wherein said retaining member includes a detent and said expansion member is configured to engage said detent to fixedly secure said expansion member thereto.

110. The apparatus of claim 104, wherein said expansion member is fixedly coupled to said elongate tensile member, whereby said expansion member may be brought into engagement with said retaining member by moving said elongate tensile member through said retaining member.